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PACKAGING

THE CAHNERS MAGAZINE FOR DECISION-MAKERS/FEBRUARY 1987

Blister Packs Reach New Heights

3M Packaging Dept. Saves $10 Million

Welch's New Jars Improve Productivity

Packaging Mergers: What's Next?

Pouch Line Runs 100 Products

CAP Report From Europe

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VOLUME 32 NUMBER 3

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LEADING INDICATORS POINTING UP IN '88

Equipment spending expected to rise 9.3%

The U.S. economy will be stronger overall in 1987 and 1988 with the largest improvements, surprisingly, in such heavy industries as metals, metalworking and machinery manufacturing.

So says an economic report issued by Cahners Publishing Co., the publisher of PACKAGING and approximately 50 other business magazines.

Industrial machinery makers will be among the main beneficiaries of the weaker dollar as the penetration of U.S. markets by foreign manufacturers slows and foreign purchases of U.S. products pick up. Equipment spending is tagged at a modest 0.3 per cent increase for 1987 but that is predicted to change to a 9.3 per cent gain in 1988.

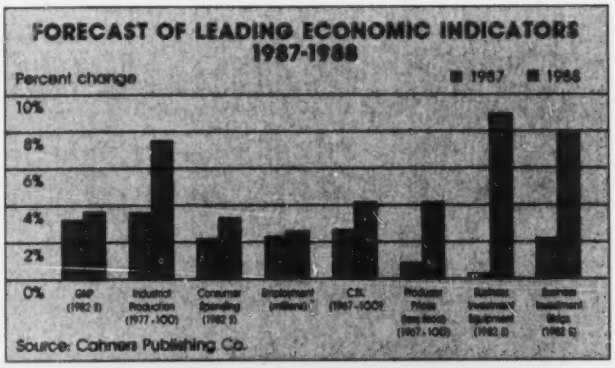
Production of consumer packaged goods has continued to increase even as other sectors of industrial production have declined. The Consumer Packaged Goods Index, which covers production of such items as food and tobacco, consumer chemicals, consumer paper products and miscellaneous home goods, among others, is predicted to finish 1986 at 4 per cent higher than 1985. The index is forecast to rise 3.2 per cent in 1987 ard 7.7 per cent in 1988.

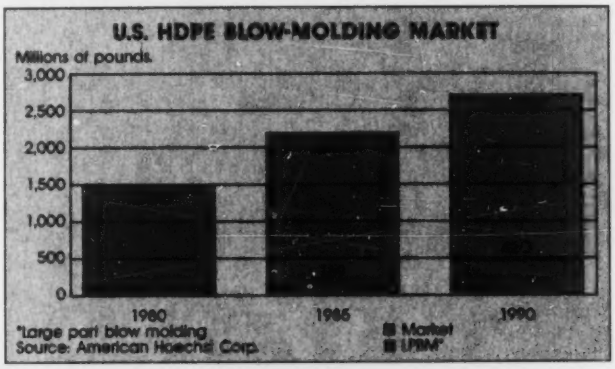
CORRUGATED SALES AND SQUARE FOOTAGE RISE

Independent converters report 9.3% sales increase

Results from the third-quarter 1986 business comparison survey conducted by the Association of Independent Corrugated Converters (AICC) show the independents reporting an average increase of 10.3% in corrugated square footage and 9.3% in sales dollars over the same period in 1985.

More than 200 AICC member companies responded to the association's first survey covering the first half of 1986, which reported gains of 5.9% in shipments and 2.6% in sales. The business comparison survey was started in 1986 in response to conflicting reports received by the association on business conditions throughout the United States and Canada. AICC intends to conduct the survey four times a year from its headquarters in Alexandria, Va.





PACKAGING LEADTIMES (in weeks)

	Dec. '86	Nov. '86	Dec. '85
Metal cans	3.4	2.9	4.1
Composite cans	3.2	3.3	4.2
Glass containers	4.3	5.0	4.9
Plastic bottles	3.9	3.7	3.9
Plastic film	3.5	3.6	4.3
Laminates	5.4	4.3	4.7
Corrugated containers	2.9	2.8	2.9
Multiwall bags	3.7	3.4	3.3
Kraft paper	3.0	3.2	3.1
Folding cartons	4.0	3.9	3.9
Fiber drums	3.5	2.9	3.1
Industrial crates	3.3	2.9	4.2
Strapping	2.7	2.6	2.9
Steel drums (shipping)	2.8	2.7	3.1
Pallets	2.7	2.5	2.8

Source: Purchasing, a Cahners Publication

TRANSACTION PRICES ($/lb.)

	Dec. '86	Nov. '86	Dec. '85
Aluminum can stock	1.06	1.08	.96
LDPE/liner	.29	.27	.31
LDPE/clarity	.33	.31	.36
LLDPE/butene	.27	.27	.30
LLDPE/octene	.36	.34	.38
HDPE/blow molding	.33	.32	.33
HDPE/film grade	.35	.35	.36
Polystyrene/general purpose	.34	.34	.33
Polystyrene/impact	.35	.36	.34
PVC/general purpose	.31	.30	.27
PP/homopolymer	.36	.38	.35
PP/copolymer	.48	.48	.46
ABS	.98	.98	1.01

BLOW-MOLDING MARKET TO GROW 5% FOR HDPE

By application, trend favors larger components

The blow-molding market, the largest for all U.S. sales of high-density polyethylene (HDPE), is expected to continue growing through 1990 but at a slower rate than between 1980 and 1985.

American Hoechst's HDPE business unit located in Houston reports that the average growth rate for the U.S. HDPE blow-molding market rose 8 per cent from 1980 to 1985 or from 1.5 billion to 2.2 billion pounds. A 5% increase is predicted for the period through 1990.

By product application, blow-molding of large components such as closed-head drums, 90-gallon municipal refuse containers and automotive gas tanks will grow 20% from now through 1990. Though a sizable increase, the same product category grew 40% between 1980 and 1985, Hoechst reported.

At press time, Hoechst estimates a 1986 year-end production total of 7.025 billion pounds in 1986, a 6.4% increase over 1985. Total HDPE capacity in place is 7.5 billion pounds so the company is predicting very tight supplies of HDPE through 1987 and 1988.

MORE STATS . . .

The Paper & Packaging Bulletin, a research publication of London-based *The Economist* magazine reports that UK output of plastic thin-wall containers for food products has risen an average of 5% annually between 1980 and 1985 to a total of 2.7 billion units. The bulletin cites yogurt as the dominant market for these containers, claiming 1.1 billion of the 1985 container figure. Published quarterly, annual subscriptions for the bulletin cost $340 (U.S.) and are available from The Economist Publications Ltd., 40 Duke St., London W1A 1DW, England . . . The 24th edition of *The Statistics of Paper, Paperboard and Wood Pulp* has been published by the **American Paper Institute**. The report covers significant statistical areas such as production, sales, regional data, capital expenditures and others. Reports cost $250 each ($275 for overseas delivery) and are available by writing Economics Dept., SBD, American Paper Institute, 260 Madison Ave., New York, N.Y. 10016.

SPECIAL REPORT

PACKAGING SUPPLIERS BRACE FOR NEW DEALS

Mergers and acquisitions in the packaging industry have made headlines in the past year, and involve some venerable supplier names. What will it mean for the packager?

By Melissa Larson
Senior Editor

Some of the oldest names in packaging are merging, spinning off businesses, being snapped up by foreign-owned conglomerates, and generally becoming fewer—and larger. Call it "restructuring" or "consolidation," but it seems to be happening with increasing frequency, especially in the past year.

What will it all mean for packagers, as the new facts of American business change their old supplier networks forever?

PACKAGING magazine spoke with a wide spectrum of industry spokesmen, encompassing packagers, suppliers, consultants and analysts. Although each restructuring needs to be judged according to its own merits, some of the recent transactions have created a climate of anxiety.

Many of those we spoke with are concerned about a possible deterioration in packaging R&D, testing and other supplier services formerly taken for granted.

Many others voiced the concern that as U.S. packaging managers are busily doing deals and watching stock prices, European, Japanese and even South American packaging suppliers are coming up with the innovations and grabbing business.

However, still others envision another result of the "new deals"—closer R&D partnership between packagers and their suppliers, with focused, well-planned research producing the packaging breakthroughs of the future.

Packaging business today

The business of packaging has radically changed in the past ten years—that much is obvious to anyone closely involved with the field. Some of the changes have to do with the general climate of American business—what the experts call "restructuring" or "consolidation."

But other changes have quietly been taking shape for decades. Although the pace has accelerated lately, foreign competition, foreign ownership, and the gradual shift from technology-driven to market-driven product development have long been a fact of life for both packaging suppliers and end users in what most agree is a maturing industry.

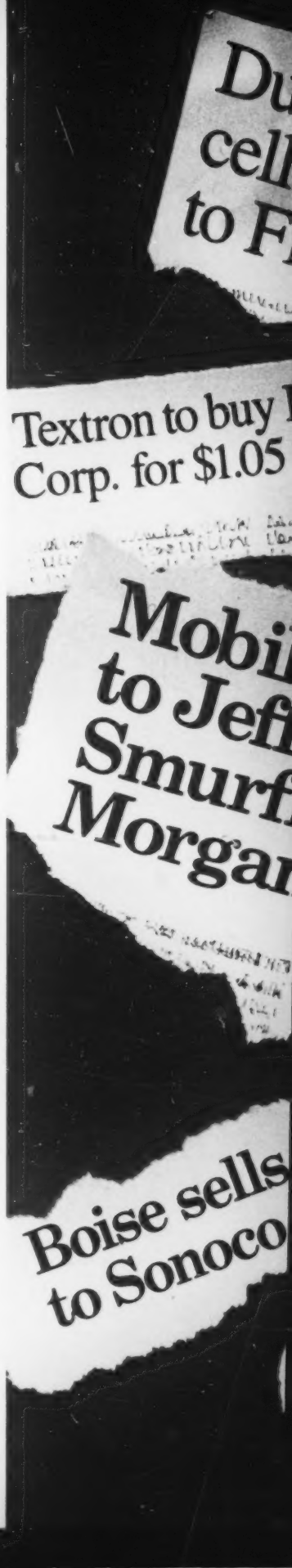
As recently as 25 or 30 years ago, a handful of packaging supplier firms did the bulk of the important packaging development. They provided their customers and potential customers with the technology, machinery, materials, and support personnel to package their products in a variety of new ways.

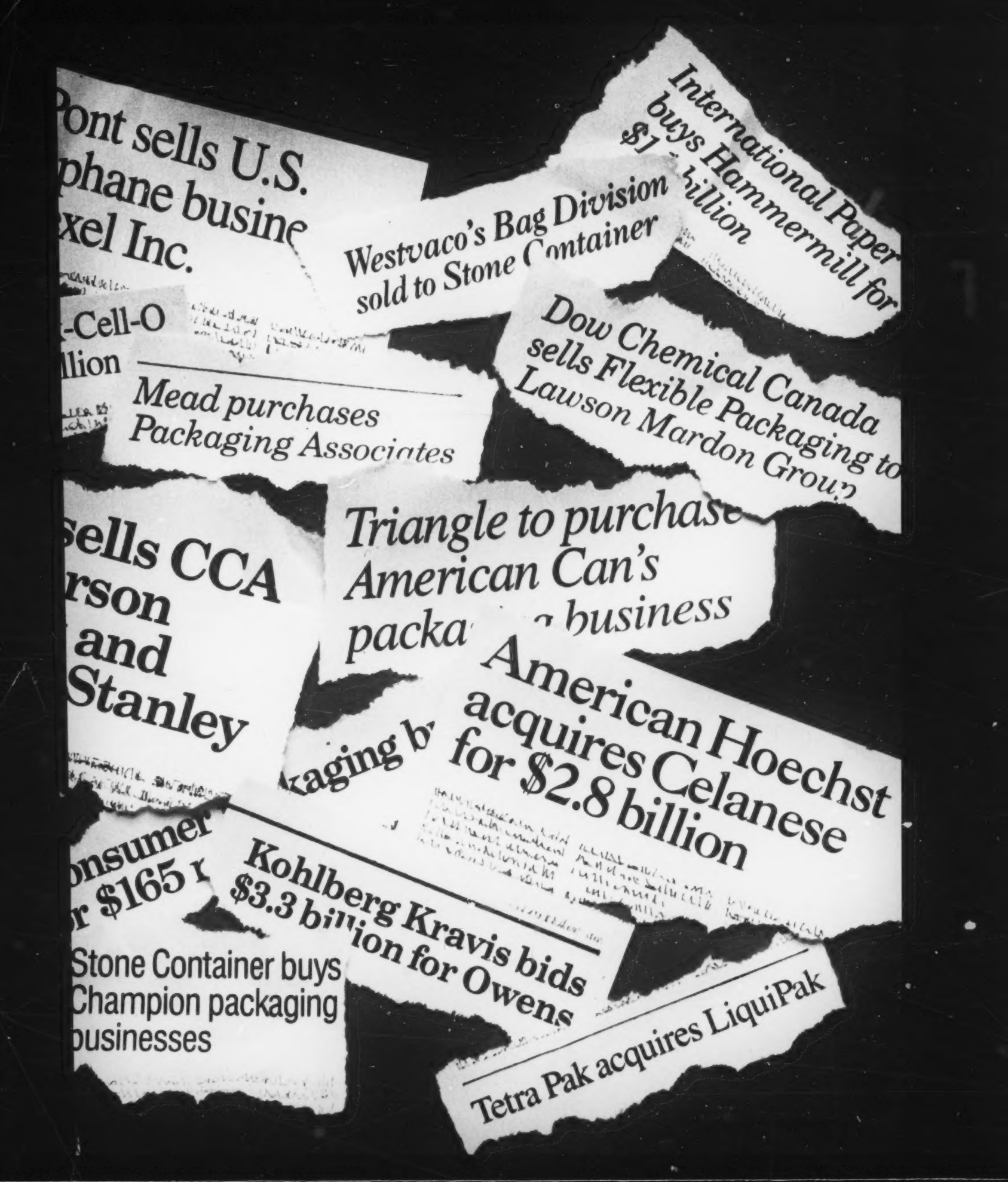
These firms had committed themselves to remaining in the packaging business, and they were able, willing and prepared to carry the necessary long-term financial burden.

But there was a down-side, too. As a marketer for a large packaging supplier recently commented, "In the old days, we came up with a new material and in essence told our customers, 'O.K., here's the new product, this is what you'll use it for, and here's how much you'll pay for it.' We were pretty arrogant."

Today, bottom-line oriented American managements of very large companies can no longer afford to carry forward such expensive R&D efforts—beyond one or two quarters. Any new product development must offer a swift payback.

To make a profit, packaging suppliers must make more of an effort to develop what their customers want. It sounds simple, but some packagers wonder if the restructured companies will be




Pont sells U.S.
phane busine
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Westvaco's Bag Division
sold to Stone Container
International Paper
buys Hammermill for
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Packaging Associates
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sells Flexible Packaging to
Lawson Mardon Group
sells CCA
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and
Stanley
Triangle to purchase
American Can's
packa business
American Hoechst
acquires Celanese
for $2.8 billion
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Kohlberg Kravis bids
$3.3 billion for Owens
Stone Container buys
Champion packaging
businesses
Tetra Pak acquires LiquiPak

Laden with debt, restructured firms can be in a state of confusion for months

able to pull it off.

The very pioneers who led the R&D effort for years are appearing in the Wall Street headlines. American Can and National Can have become part of Triangle Industries—now one of the nation's largest packaging suppliers. Continental Can has "gone private," in financial parlance. Container Corp. of America is now jointly owned by Jefferson Smurfit Corp. and The Morgan Stanley Leveraged Equity Fund.

Other old packaging names have made news by buying and selling particular businesses to each other, as they try to carve out niches of expertise for themselves, and get rid of unprofitable product lines. Several paperboard companies, including Westvaco. International Paper, Stone Container and Champion International have been involved in this type of transaction.

Some giant petrochemical companies, living in the post-OPEC reality of lower profits, are spinning off the plastic resin operations purchased with those oil dollars. Many plastics have become commodities, and the low margins earned leave little to invest in container R&D.

One major concern for packagers is that, after such transactions, the restructured companies usually need to "put their houses in order." Sometimes laden with debt and carrying personnel from two or more firms, management can be in a state of confusion for weeks or months.

"The down-side of many of these transactions is that some of the companies are so highly leveraged that they can't take advantage of opportunities," explained Al Austin, vice president of containers and capital improvements at Campbell Soup Co. "Existing R&D strategies are thrown into a turmoil, and there is no consideration for the needs of the customer."

Foreign influence

Into the void, some say, rush foreign packaging machinery, materials and techniques. Overseas marketers cruise U.S. shows, looking for niches, unmet needs. They often don't have as much overhead or middle management, so they make a profit more easily. Before long, Americans are going to overseas shows to learn what's new.

"Today's packaging technology is coming from Europe, when it has to do with food or concepts, and from Japan when it comes to manufacturing techniques," said Austin. "I was in Japan last month, and I can assure you that they are quite aggressive in their pursuit of U.S. packaging dollars."

Stan Sacharow, executive director of The Packaging Group Inc., would add South America to the list. "We're seeing a great deal of South American printed goods—polyethylene bags from Brazil, and OPP and cellophane from Mexico, among others."

Part of this influx of foreign technology and goods has to do with sheer aggressiveness, according to Dr. Aaron Brody of Schotland Business Research, who was interviewed during Pack Expo week.

"When you visit an American show such as this one, you're struck by the numbers of Europeans cruising the aisles—and I mean management people, presidents of very large foreign packaging firms. They're on the lookout for new business," he stated. "At a European packaging show, you don't see American packaging management people at all. Why not? Because they're at home reading The Wall Street Journal."

But Brody also points out that some small American firms, not part of the Wall Street frenzy, are coming up with innovative new products.

"Technology is coming from the smaller companies. They don't have the resources to do it all, so they focus on a single concept or technology and really work on it."

Cautious optimism

The acquisition of American Can by Triangle Industries has attracted more attention than most of the recent deals, mainly because of American Can's reputation for packaging innovation.

From pioneering the U.S. canning industry to recent barrier container innovations like the Gamma bottle and the Omni can, the firm's R&D is respected worldwide. Many

CONTAINER INDUSTRY—CURRENT EARNINGS ESTIMATES

Company	Symbol	Price 12/26/86	52-Week Price Range	Current Dividend	Yield	1985 Book Value	Earnings Per Share 1985A	1986E	1987E	P/E Ratios 1985A	1986E	1987E	5-Yr Growth EPS	DIV
American Can	AC	$84.88	$91.88 - 58.75	$2.90	3.42%	$47.16	$5.06	$5.50	$7.00	16.77	15.43	12.13	15.0	0.0
Anchor Hocking	ARH	29.75	35.00 - 23.25	1.48	4.97	24.21	0.23	0.75	1.50	NM	39.67	19.83	10.0	6.0
Ball Corp.	BLL	36.50	45.50 - 26.25	0.82	2.25	14.38	2.24	2.50	2.85	16.29	14.60	12.81	13.5	10.0
Brockway	BRK	24.13	29.88 - 17.63	0.88	3.65	18.17	1.46	2.35	2.65	16.52	10.27	9.10	13.0	10.0
Crown Cork & Seal	CCK	105.50	114.25 - 77.25	—	—	50.46	6.52	7.50	8.50	16.18	14.07	12.41	13.5	0.0
Diamond-Bathurst	DBH	11.38	35.13 - 10.50	0.20	1.76	10.46	1.94	-0.30	2.00	5.86	NM	5.69	20.0	10.0
Dorsey Corp.	DSY	21.88	28.50 - 18.00	0.64	2.93	12.10	1.60	1.75	1.90	13.67	12.50	11.51	10.0	10.0
Heekin Can	HEKN	18.50	26.75 - 17.00	—	—	8.02	2.28	2.35	2.85	8.11	7.87	6.49	11.0	0.0
Owens-Illinois (D)	OI	52.13	52.25 - 25.75	0.95	1.82	25.76	2.55	2.90	3.50	20.48	17.97	14.89	12.0	7.0
Sealed Air	SEE	41.75	43.75 - 33.13	0.48	1.15	12.92	1.95	2.15	2.40	21.41	19.42	17.40	16.9	10.0
Triangle Industries	TRI	27.13	31.75 - 16.00	0.12	0.44	11.16	2.66	0.62	3.00	10.20	43.75	9.04	16.0	0.0

A: Actual D: Fully Diluted E: Estimated NM: Not Meaningful EPS: Earnings Per Share DIV: Dividend
Source: The First Boston Corp.

have wondered how the acquisition will effect that R&D effort.

But American Can personnel, both on and off the record, seem upbeat and encouraged by Triangle's treatment of previously acquired National Can.

"In the first 18 months they owned National Can, Triangle Industries doubled National's capital budget," explained Norm Wholley, American Can's vice president of corporate markets. "That gave us confidence that Triangle is in fact committed to long-term growth in the packaging industry. They've agreed to spend hundreds of millions on machinery, and they're building new plants."

"Triangle management seems to realize that a firm doesn't achieve long-term growth without strong R&D," he continued. "We believe that our position in barrier plastics and other high-investment development will continue."

More new deals

The merger and acquisition trend among packaging suppliers shows no sign of slowing down. As this article went to press, Owens-Illinois Inc. announced that leveraged buyout specialist Kohlberg Kravis Roberts and Co. had made a formal proposal to acquire the glassmaker for $3.3 billion. Owens spokesman Jerry Arkebauer said that the board of directors was considering the proposal but that "no timetable has been set for reaching a decision."

Monsanto Co. has announced that it is negotiating with Ball Corp. for the sale of the assets associated with Monsanto's plastic container business. Observers regard this transaction as good news for packagers, because Ball's commitment to R&D should enable them to make better use of Monsanto's plastic container technology, which some felt was getting lost in the shuffle at the chemical giant.

Next, Sonoco Products Co. announced that it had agreed with Boise Cascade to purchase Boise's consumer packaging business, the assets of which include 27 plants making composite cans and/or plastic bottles. The deal should be concluded by the end of the first quarter of 1987, according to Sonoco spokesman Dick Puffer.

Apparently, packagers and suppliers alike will have to continue to adjust to the new order. A new cooperation will be necessary. With that cooperation may come a more direct relationship between new packages in the laboratory, and the packages the consumer wants to find on supermarket shelves. ■

MELISSA LARSON
Senior Editor

An avid reader of general business publications, Melissa Larson is finding that the "business" of packaging is becoming almost as interesting as packaging itself.

CONTAINER STOCK ANALYST SAYS MERGERS CAN BENEFIT FIRM

Cornelius W. Thornton makes a living analyzing packaging stocks for clients of The First Boston Corp., a major New York-based investment banking firm.

And he's very good at it. Thornton, called "Perk" by his friends and associates, was recently named to the "All-America Research Team" by *Institutional Investor* magazine, which ranks top analysts in several industry areas of expertise.

In the "Containers" category, Thornton has received "1st team" honors, as top analyst, two years in a row. PACKAGING magazine felt his extensive knowledge of the industry from an investment standpoint would enable Thornton to provide an interesting view of recent packaging company transactions.

What follows is a distillation of his recent written analyses of the packaging industry for investors, as well as a PACKAGING interview at First Boston's New York headquarters.

On the industry as a whole:

"In our opinion, packaging is experiencing what we would describe as a mini-boom. Better underlying fundamentals, including substantially higher operating rates, firmer prices, and stable to declining costs are not only widening margins but are also boosting profits. The emerging evidence suggests that the improvements will continue for the next several years, if not longer.

"While plastic continues to make substantial inroads in the packaging market, and will emerge as the packaging material of the future, it is presently plagued by narrow margins and low levels of profits.

"On balance, though, we not only look for a continuing role for metal cans and glass containers, but also see a growing niche for plastic."

On metal and glass container stock performance:

"For the past few years the group has performed outstandingly, almost doubling in value. We attribute most of the gain in the group to a rising stock market in general, restructuring at several companies in the industry, and takeovers, as four and sometimes six companies have been directly or indirectly targets of takeover activity.

"By and large, we believe the increased valuation reflects a growing realization that the container industry is in a state of improved health . . . Investors are rapidly altering their opinion toward the metal and glass container industry."

On mergers in general:

"When large firms merge, they don't always need all accounting, purchasing, sales, or independent R&D functions from both firms. Contrary to conventional wisdom, there *can* be economies of scale."

On the acquisition of American Can by Triangle Industries:

"In my opinion, the acquisition by Triangle of American Can's packaging business will not diminish the R&D effort of the business. Triangle was already involved in packaging, and obviously saw American Can's expertise in plastics packaging, for instance, as a growth opportunity.

"Triangle management now feels, justifiably, that they're No. 1 in packaging development, with the recent acquisition. They've demonstrated their commitment to packaging by building plants and buying machinery. The plant being built in Illinois for the Omni container is an example of that commitment.

"In short, I just don't feel that Triangle bought American Can with the intention of dismantling the firm's well-established business."